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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David John GRAINGER et al

Serial No.: 10/581274

Filed: June 1, 2006

For: ANTI-INFLAMMATORY AGENTS

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

As a means of complying with the duty of disclosure under 37 CFR \$1.56, and in accordance with 37 CFR \$\$1.97 and 1.98, Applicant(s), through the undersigned attorney, submits this Information Disclosure Statement. The patents, publications or other information submitted herewith are listed on the attached Form PTO-1449 and copies are attached excluding U.S. patents and publications.

Documents AC, AD, AF, AH, AI, AN-AP, AT and AU listed on the attached Form PTO-1449 were cited in the International Search Report. A copy of the ISR is attached.

Documents AA, AB, AE, AG, AJ-AM, AQ-AT, AV and AW listed on the attached Form PTO-1449 were cited in a corresponding British Search Report issued in a counterpart British application. A copy of the British Search Report is enclosed.

Documents AV and AX-AZ are discussed in the instant specification.

In accordance with 37 CFR §1.97(b)(3), this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits of the above-identified application.

Should any additional fee be required by the filing of this statement, please charge such fee to Deposit Account No. 06-1358.

Respectfully submitted,

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Date: January 3, 2007

INT NATIONAL SEARCH REPORT

...ternational Application No PCT/GB2004/005030

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61K31/55 A61P29/00

C07D223/10

A61P25/28

A61P37/00

A61P19/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, CHEM ABS Data

C. DOCUM	C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.				
X	DAVIDSON BRADLEY S ET AL: "Isolation and synthesis of caprolactins A and B, new caprolactams from a marine bacterium" TETRAHEDRON, vol. 49, no. 30, 1993, pages 6569-6574, XP002320426 ISSN: 0040-4020 abstract page 6569, paragraph 1 page 6571, last paragraph	1-6,8,				
X Furti	er documents are listed in the continuation of box C. X Patent family members are list	sted in annex.				

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
 Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed 	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 9 March 2005	Date of mailing of the international search report 2.2. 06. 2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Langer, 0

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INT! IATIONAL SEARCH REPORT

rnational Application No PCT/GB2004/005030

<u> </u>	ation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document with indication, where appropriate of the relevant passages	Relevant to claim No.
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Helevant to claim No.
X	SEIFFERT D ET AL: "Presenilin-1 and -2 are molecular targets for gamma-secretase inhibitors." THE JOURNAL OF BIOLOGICAL CHEMISTRY. 3 NOV 2000, vol. 275, no. 44, 3 November 2000 (2000-11-03), pages 34086-34091, XP002320427 ISSN: 0021-9258 scheme 1 on page 34087	5,6,8, 10,11, 21,22
X	WO 98/07694 A (NOVARTIS AG; GERSPACHER, MARC; VON SPRECHER, ANDREAS; MAH, ROBERT; ROG) 26 February 1998 (1998-02-26) page 1 - page 3, paragraph 3 page 3, paragraph 5 - page 5, paragraph 3 claims 1-14	1
X	EP 1 008 346 A (SUNTORY LIMITED; DAIICHI SUNTORY PHARMA CO., LTD) 14 June 2000 (2000-06-14) paragraph [0022] paragraph [0024] - paragraph [0028] page 58 paragraph [0200]	1
Х	US 5 852 007 A (CHATTERJEE ET AL) 22 December 1998 (1998-12-22) column 64; example 108	1
X	US 5 821 231 A (ARRHENIUS ET AL) 13 October 1998 (1998-10-13) table 1 claims 20-25	1
X	WO 01/68655 A (ARIAD PHARMACEUTICALS, INC; DEPREZ, PIERRE; LESUISSE, DOMINIQUE; BENAR) 20 September 2001 (2001-09-20) page 11, line 5 - line 19 claims 13,24 claims 18-20	1
X	EP 0 351 856 A (TAKEDA CHEMICAL INDUSTRIES, LTD) 24 January 1990 (1990-01-24) Chart II on page 7	5,8,10, 11,21,22
A .	WO 98/17680 A (ZENECA LIMITED; LUKE, RICHARD, WILLIAM, ARTHUR; COTTON, RONALD) 30 April 1998 (1998-04-30) claims 1,8,11-13	1-24,26
A	US 6 344 450 B1 (BISACCHI GREGORY S ET AL) 5 February 2002 (2002-02-05) Chart II on page 7 the whole document	1-24,26

INT/ VATIONAL SEARCH REPORT

Information on patent family members

rnational Application No
PCT/GB2004/005030

			1017482	
Patent document cited in search report	Publication date		Patent family member(s)	Publication date
WO 9807694	A 26-02-1998	AT AU AU BR CA CN CZ	224875 T 721850 B2 4299397 A 9711350 A 2264065 A1 1233238 A ,C 9900581 A3	15-10-2002 13-07-2000 06-03-1998 17-08-1999 26-02-1998 27-10-1999 16-06-1999
		DE DE DK WO EP ES HK HU	69715886 D1 69715886 T2 923550 T3 9807694 A1 0923550 A1 2184083 T3 1021372 A1 0001165 A2	31-10-2002 15-05-2003 06-01-2003 26-02-1998 23-06-1999 01-04-2003 20-06-2003 28-11-2000
		ID IL JP NO NZ PL PT	18059 A 128631 A 2001503387 T 990786 A 334736 A 331740 A1 923550 T	26-02-1998 12-09-2002 13-03-2001 25-03-1999 29-09-2000 02-08-1999 31-01-2003
		RU SI SK TR TW US ZA	2185375 C2 923550 T1 22199 A3 9900363 T2 438777 B 6319917 B1 9707493 A	20-07-2002 28-02-2003 14-02-2000 21-04-1999 07-06-2001 20-11-2001 03-08-1998
EP 1008346 A	14-06-2000	AU CA EP HU CN WO US	2854399 A 2003244564 A1 2290630 A1 1008346 A1 0003274 A2 1262618 A ,C 9948491 A1 2004030129 A1	18-10-1999 02-10-2003 30-09-1999 14-06-2000 28-05-2001 09-08-2000 30-09-1999 12-02-2004
US 5852007 A	22-12-1998	AU AU CA EP JP WO	714324 B2 1025397 A 2238175 A1 0910564 A1 2002515860 T 9721690 A1	06-01-2000 03-07-1997 19-06-1997 28-04-1999 28-05-2002 19-06-1997
US 5821231 A	13-10-1998	CA CN JP NZ US US AU AU EP WO US	2177840 A1 1142832 A 9509146 T 277206 A 5770573 A 5936065 A 6117840 A 693143 B2 1215695 A 0737204 A1 9515973 A1 5688913 A	15-06-1995 12-02-1997 16-09-1997 24-11-1997 23-06-1998 10-08-1999 12-09-2000 25-06-1998 27-06-1995 16-10-1996 15-06-1995 18-11-1997

INT/ NATIONAL SEARCH REPORT

Information on patent family members

rnational Application No. PCT/GB2004/005030

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5821231	A	US	6103870 A	15-08-2000
WO 0168655	A 20-09-2001	AU WO	4360101 A 0168655 A2	24-09-2001 20-09-2001
EP 0351856	A 24-01-1990	AT AU CA DE DK EP JP KR VS US US ZA	184610 T 610739 B2 3886289 A 1336431 C 68929074 D1 68929074 T2 362889 A 0351856 A2 91063 A 3047188 A 3054738 B2 9711396 B1 230042 A 4956360 A 5118806 A 5300639 A 8905582 A	15-10-1999 23-05-1991 25-01-1990 25-07-1995 21-10-1999 05-01-2000 23-01-1990 24-01-1990 29-12-1994 28-02-1991 19-06-2000 10-07-1997 26-10-1990 11-09-1990 02-06-1992 05-04-1994 27-03-1991
WO 9817680	A 30-04-1998	AT AU DE DE EP WO JP TW US ZA	256145 T 4633097 A 69726743 D1 69726743 T2 0932618 A1 9817680 A1 2001508036 T 492868 B 6207644 B1 9709338 A	15-12-2003 15-05-1998 22-01-2004 14-10-2004 04-08-1999 30-04-1998 19-06-2001 01-07-2002 27-03-2001 20-04-1998
US 6344450	B1 05-02-2002	AU CA EP HU JP WO AU CA EP JP WO	8064201 A 2418995 A1 1309609 A2 0303662 A2 2004521071 T 0212196 A2 756174 B2 2630000 A 2361919 A1 1175405 A1 2002536437 T 0047563 A1	18-02-2002 14-02-2002 14-05-2003 01-03-2004 15-07-2004 14-02-2002 09-01-2003 29-08-2000 17-08-2000 30-01-2002 29-10-2002 17-08-2000







Application No: Claims searched:

GB 0327775.3

1-14

Examiner: Date of search:

Dr Annabel Ovens 15 March 2004

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance			
X	5 at least	Research Communications in Psychology, Psychiatry and Behavior Vol. 17, Nos. 3 & 4, 1992, Benjamin Weiss et al., "Effects of various amides on a rat brain puromycin-sensitive aminopeptidase and on induced convulsions in mice", pages 153-159, especially 3-Hexanamido-CAP, 3-Dodecanoamido-CAP and N-(n-Octyl)-ureido-N'-CAP in Table I at page 157 (see also CAPLUS Abstract Accession No. 1994:95413)			
X	5 at least	JP 2003145933 A (RI Abstract Accession N	COH CO.) 21.05.2203 (see also CAPLUS to. 2003:386547)		
X	5 at least	US 6506782 B	(THORSETT ET AL.) see starting material of general procedure 5-A at column 139 and also CAPLUS Abstract Accession No. 2003:35360		
Χ .	5 at least	Journal of Bacteriology Vol. 178, No. 10, 1996, Amy L Schaefer et al., "Quorum sensing in <i>Vibrio fischeri</i> : probing autoinducer-LuxR interactions with autoinducer analogs", pages 2897-2901, especially compound W at page 2898 (see also CAPLUS Abstract Accession No. 1996:295790)			
X	5 at least	US 5430022 (HEMMI ET AL.) see preparation 33-13 at column 46 and preparation 34-18 at column 48 and also CAPLUS Abstract Accession N 1994:410003			
X	5 at least		KEDA CHEMICAL INDUSTRIES) 09.09.1991 bstract Accession No. 1992:83664)		
X	5 at least	US 3646153	(OXENRIDER ET AL.) see Example 10 and also CAPLUS Abstract Accession No. 1971:437790		
Х	6 at least	US 6297233 B	(STEIN ET AL.) see starting material in Example 13 at column 31 and also CAPLUS Abstract Accession No. 2000:573666		
Х	5 at least	WO 97/16410 A	(MERCK AND CO) see compound 5 at page 13 and Example 5 at pages 29-30 and also CAPLUS Abstract Accession No. 1997:390706		







Application No: Claims searched:

GB 0327775.3

Accession No. 1998:650488)

1-14

Examiner: Date of search: Dr Annabel Ovens 15 March 2004

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	5 at least	Tetrahedron Vol. 49, No. 30, 1993, Bradley S Davidson and Robert W Schumacher, "Isolation and synthesis of caprolactins A and B, new caprolactams from a marine bacterium", pages 6569-6574, especially compounds 1 and 2 at page 6569 (see also CAPLUS Abstract Accession No. 1993:666057)
X	5 at least	JP 100265761 A (JSR CO.) 06.10.1998 (see also CAPLUS Abstract

Categories:

[]	C Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
7	Occument indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
٤	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:
Search of GB, EP, WO & US patent documents classified in the following areas of the UKC ^w :
Worldwide search of patent documents classified in the following areas of the IPC ⁷ :
The following online and other databases have been used in the preparation of this search report:
CAS-ONLINE

JAN 03 2007

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400 SEVENTH STREET, N.W. MASHINGTON, D.C. 20004-2201

AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

GROUP ART UNIT: ATTY. DOCKET NO.: P71304US0 SERIAL NO.: 10/581274 2006 FILING DATE: June 1 GRAINGER et al APPLICANT(S): TODAY'S DATE: January 3,

U.S. PATENT DOCUMENTS

*EXAMINER		DOCUMENT				SUB-	FILING DATE
INITIAL		<u>NUMBER</u>	DATE	NAME	<u>CLASS</u>	<u>CLASS</u>	If Appropriate)
<u>/Z.V./</u>	AA	<u>3646153</u>	02/29/72	<u>Oxenrider et al</u>	260	<u> 78</u>	
	AB	5430022	<u>07/04/95</u>	<u>Hemmi et al</u>	<u>514</u>	<u> 18</u>	
	AC	<u>5821231</u>	10/13/98	Arrhenius et al	514	18	
	ΑD	<u>5852007</u>	12/22/98	<u>Chatterjee</u>	514	183	
	ΑE	6297333	10/02/01	Stein et al	514	212	
	AF	<u>6344450</u>	02/05/02	Bisacchi et al	514	212	
Y	AG	6506782	01/14/03	Thorsett et al	514	364	

FOREIGN PATENT DOCUMENTS

		DOCUMENT				SUB-	TRANSLATION
(<u>NUMBER</u>	<u>DATE</u>	<u>COUNTRY</u>	<u>CLASS</u>	<u>CLASS</u>	YES) (NO)
<u>/Z.V./</u>	AΗ	<u>0351856</u>	01/24/90	Europe			
	ΑI	1008346	06/14/00	Europe			
	AJ	3-206042	09/09/91	<u>Japan</u>			XX
	AK	10-265761	10/06/98	Japan			XX
	\mathtt{AL}	2003-145933	05/21/03	Japan			XX
	AM	WO97/16410	05/09/97	WIPO			
	AN	WO98/07694	02/26/98	WIPO	<u> </u>		
1	AO	WO98/17680	04/30/98	WIPO			
	AP	WO01/68655	09/20/01	WIPO	·		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

(~~) \ 1 (,, ,,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,
<u>/Z.V.</u> /	AQ	CAPLUS Abstract Accession No. 2003:386547 (corresponding to
ı		JP 03-145933)
	AR	CAPLUS Abstract Accession No. 1992:83664 (corresponding to
8		JP 03-206042)
	AS	CAPLUS Abstract Accession No. 1998:650488 (corresponding to
X		JP 10-265761
	ΑT	Davidson et al, TETRAHEDRON, Vol49, No 30, pgs. 6569-6574, 1993,
80		Isolation and Synthesis of Caprolactins A and B, New
	AU	Seiffert et al, THE JOUR OF BIOL CHEM, Vol 275, No 44, 11/3/00,
99999		pgs. 34086-34091, Presenilin-1 and -2 Are Molecular Targets
	ΑV	Weiss et al, RESEARCH COMM IN PSYCHOLOGY,, Vol 17, Nos 3&4,
3		1992, pgs. 153-159, Effects of Various Amides on a Rat Brain
	AW	Schaefer et al, JOUR OF BACTERIOLOGY, May 1996, pgs. 2897-2901,
		Quorum Sensing in Bibrio fischeri: Probing Autoinducer-LuxR
	AX	Grainger et al, BIOCHEMICAL PHARMACOLOGY 65, 2003, pgs. 1027-
000		1034, Broad-spectrum chemokine inhibitors (BSCIs) and their
	AY	Reckless et al, BIOCHEM J 340, 1999, pqs. 803-811, Identification
N/		of oligopeptide sequences with inhibit migration induced by a
	ΑZ	Fox et al, J MED CHEM 45, 2002, pgs. 360-370, Design, Synthesis,
		and Preliminary Pharmacological Evaluation of N-Acyl-3

EXAMINER DATE CONSIDERED /Zohreh Vakili/ 06/20/2010

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).